

/H/L/E 1 ATGACACCGACGACGACGACCGCGGAACTCAG 33  
 /H/L/E 34 ACGGAGTTTGACTACGACGATGAAGCGACTCCC 64  
 /H/L/E 67 TGTGTCCTCACCAGCGTGCTTAATCAGTCGAAG 90  
 /H/L/E 100 CCAGTCACGTTGTTTCTGTACGGCGTTGTCTTT 132  
 /H/L/E 133 CTCTTCGGTTCCATCGGCAACTTCTTGGTGATC 165  
 /H/L/E 166 TTCACCATCACCTGGCGACGTGGGATTCAATGT 198  
 /H/L/E 199 TCCGGCGATGTTTACTTTATCAACCTCGCGGCC 231  
 /H/L/E 232 GCCGATTTGCTTTTCGTTTGTACACTACCTCTG 264  
 /H/L/E 265 TGGATGCAATACCTCCTAGATCACAACCTCCCTA 297  
 /H/L/E 298 GCCAGCGTGCCGTGTACGTTACTCACTGCCTGT 330  
 /H/L/E 331 TTCTACGTGGCTATGTTTGCCAGTTTGTGTTTT 363  
 /H/L/E 364 ATCACGGAGATTGCACTCGATCGCTACTACGCT 396  
 /H/L/E 397 ATTGTTTACATGAGATATCGGCCTGTAAAACAG 429  
 /H/L/E 430 GCCTGCCTTTTTCAGTATTTTTTGGTGGATCTTT 462  
 /H/L/E 463 GCGGTGATCATCGCCATTCCACACTTTATGGTG 495  
 /H/L/E 496 GTGACCAAAAAAGACAATCAATGTATGACCGAC 528  
 /H/L/E 529 TACGACTACTTAGAGGTCAGTTACCCGATCATC 561  
 /H/L/E 562 CTC AACGTAGA ACTCATGCTCGGTGCTTTTCGTG 594  
 /H/L/E 595 ATCCCGCTCAGTGT CATCAGCTACTGCTACTAC 627  
 /H/L/E 628 CGCATTTCCAGAATCGTTGCGGTGTCTCAGTCG 660  
 /H/L/E 661 CCCCACAAAGGCCGCATTGTACGGGTACTTATA 693  
 /H/L/E 694 GCGGTGCTGCTTGTCTTTATCATCTTTTGGCTG 726  
 /H/L/E 727 CCGTACCACCTGACGCTGTTTGTGGACACGTTG 759  
 /H/L/E 760 AAAGTGTCAAATGGATCTCCAGCAGCTGCGAG 792  
 /H/L/E 793 TTCGAAAAATCACTCAAGCGCGCGCTCATCTTG 825  
 /H/L/E 826 ACCGAGTCACTCGCCTTTTGTCACTGTTGTCTC 858  
 /H/L/E 859 AATCCGCTGCTGTACGTCTTCGTGGGCACCAAG 891  
 /H/L/E 892 TTTCCGCAAGAACTGCACTGTCTGCTGGCCGAG 924  
 /H/L/E 925 TTTCCGCCAGCGACTGTTTTCCCGCGATGTATCC 957  
 /H/L/E 958 TGGTACCACAGCATGAGCTTTTTCGCGTCCGAGC 990  
 /H/L/E 991 TCGCCGAGCCGAAGAGAGACGTCTTCCGACACG 1023  
 /H/L/E 1024 CTGTCCGACGAGGCGTGTGCGGTCTCACAAATT 1056  
 /H/L/E 1057 ATACCGTAA 1088

Fig. 1A

VHL/E	1	<u>MTPTTTTAELTTEFDYDDEATPCVLTDV-LNQSK</u>	33
VHL/E	34	<u>PVTLEFLYGVVFLFGSIGNFLVIFTITWRRRIQC</u>	66
VHL/E	67	SGDVYFINLAAADLLFVCTLPLWMQYLLDHNSL	99
VHL/E	100	ASVPCTLLTACFYVAMFASLCFITEIALDRYYA	132
VHL/E	133	IVYMRYRPVKQACLFSIFWWIFAVIIAIPHFMV	165
VHL/E	166	VTKKDNQCMTDYDYLEVSYPIILNVELMLGAFV	198
VHL/E	199	IPLSVISYCYRISRIVAVSQSRHKGRIVRVLI	231
VHL/E	232	AVVLVFIIFWLPYHLTLFVDTLKLLKWISSSCE	264
VHL/E	265	FEKSLKRALILTESLAFCHCCLNPLLYVFGTK	297
VHL/E	298	FROELHCLLAEFRORLFSRDVSWYHSMSFSRRS	330
VHL/E	331	SPSRRETSSDTLSDEACRVSQIIP	364

Fig. 1B

human US28	1	MTPIT	5
rhesus US28.1	1	ML	1
rhesus US28.2	1	MTNA	4
rhesus US28.3	1	MTNT	4
rhesus US28.4	1		0
rhesus US28.5	1	MTTITMSATTNSSTTPQASSTTMTTKTSTPGN	32
human US28	6	TTAEIT	12
rhesus US28.1	2		1
rhesus US28.2	5		4
rhesus US28.3	5		4
rhesus US28.4	1		0
rhesus US28.5	3	TTTGTTSTLTTISTTSNATSITSNLSTTGNT	64
human US28	13		12
rhesus US28.1	2		4
rhesus US28.2	5		6
rhesus US28.3	5		7
rhesus US28.4	1		15
rhesus US28.5	5	ATTNATTFSSSTLTTSTNISSTFSTVSTVASNA	96
human US28	13		12
rhesus US28.1	5	SCN	8
rhesus US28.2	7	CH	9
rhesus US28.3	8	TCH	11
rhesus US28.4	6		21
rhesus US28.5	7	TCNSTITTNITTAFTTAANTTASSLTSIVTSL	128
human US28	13		37
rhesus US28.1	9	NVTLNASAEFDYDEDA	23
rhesus US28.2	10	NESLASYG	24
rhesus US28.3	12	NGTFETF	26
rhesus US28.4	2		21
rhesus US28.5	9	ATTIETTSEFDYDESAEACNLTDIVHTTRSVTV	160
human US28	38		68
rhesus US28.1	24	FLYGWVFLFGSIGNELVETITWRRIQCSG	54
rhesus US28.2	5	AMYSIVICGLVGNELLCVLVKKIRKIRYSS	56
rhesus US28.3	7	TLYSIAGICGVTGNLLTLLFTBRIHWFAN	57
rhesus US28.4	2	SAYTVLVGLLGNIVLSVLLVVKIRKILKFPN	51
rhesus US28.5	1	JYTCVFLHGLLGHFYLYWKNHHSNSFS	191
human US28	69		100
rhesus US28.1	55	DVYFINLAADLEFVCTLPWMOYLLDHNLSLA	86
rhesus US28.2	56	DVYEFHASMADLVSTVMLPLWLHYVLNFAQLS	87
rhesus US28.3	58	DIYILNMIFTDFLVETLPWVYLLNYTQLS	89
rhesus US28.4	52	DIYFFNASLADVFACMLPAWVNYALDSTQLS	83
rhesus US28.5	2	DVLFHLMITEFVFTLTIPVWAYHLLTHGNLP	223
human US28	101		132
rhesus US28.1	97	SVPCITLLTACFYVAMEASLCFITEIALDRYYA	117
rhesus US28.2	98	RGACISFSVTFFVPLFVQAWLLISIAMERYYS	118
rhesus US28.3	90	HYACIALSFMFYVSIFIQADFMVAIERYR	120
rhesus US28.4	84	KFSCITFTFGFYVSLFIQAWMLITLERYG	114
rhesus US28.5	84	GSWCISLTFVFLTVFABAFFYLLLIWDRYS	255
		HASCYAMTALEYCALFASTVEFVLDRCYA	

FIG. 2 (Page 1 of 2)

human US28.133	L V Y M R Y R R V K Q - - - - - A C L F S I F W W I F A V I	157
rhesus US28.118	N L V W M A P I S V K - - - T A F K H C I G T - - - W I V S A F	143
rhesus US28.219	S L V K N K P L S V K - - - K A S V S C A G I - - - W I V S A F	144
rhesus US28.321	S L V W T A P I T R N - - - K A I A N C V I F - - - W I V S A F	146
rhesus US28.415	V I I C H P L P V N L N Y S Q V I G - - - I S V W - - - L V A V	141
rhesus US28.556	F L L G T E K A N R R L L R N A V S G C M L M - - - W G E C F I	284
human US28.158	L A I P H E M V V T K - K D N O C - M T D Y D Y - L E V S Y P I	186
rhesus US28.144	V A S P Y Y A Y R N S - H E C I L G N Y T W H I N E P I H T	175
rhesus US28.215	V S S P Y Y M F R S O H E T N S C I L G N Y T W H M N S P E R T	176
rhesus US28.347	L A A P Y Y S F R N E - H E H O C I M R N Y T W S V G E T W H I	178
rhesus US28.442	L S A S P F S I F N G - S V K O C - L G N M G - S I P S E S S A	170
rhesus US28.565	L A L P H F I E M K K - G T N V C - V A E Y E P G L N N F Y V I	314
human US28.187	I L N V E L M L G A F V P S V I S Y C Y Y R I S R I V A V S	218
rhesus US28.178	C M D V V I V W T F L A P V L V F L A S V K M - R R I T W G	206
rhesus US28.277	T M D A S I N I W S F V P A V T T L L I A R I Y V - C T S G	207
rhesus US28.379	A L D F L T L F I M P V I T L A L S E K M A R W S T E G	210
rhesus US28.471	V L N L E V H L C S F W L P L I M S A N C Y Y Q A K R R S P D	202
rhesus US28.515	F I N T E V N L C T E V L P A A A I I Y W Y L K L T K A L K T H	346
human US28.219	Q S - R H K G R I V R V L I V V E L F E W L P Y H L T L F	249
rhesus US28.107	N T - R E N E K N S D I L F L V M T V F F W G P F N I Y V	237
rhesus US28.208	N K - K M N A R A S G L L E A M V I S M L F E G G L F N L N I F	236
rhesus US28.311	Y R - N I T S R T S L I L L I T V A A G F W G P F H L E M F	241
rhesus US28.403	Q - - L H E L Y R C S L L E T T I T T Y A I V W F P E H L A L L	232
rhesus US28.547	E R E R H R L T S L N I V L A V V V E A L F W L P Y N L M L M	378
human US28.250	V D T L K I - L K W I S S S C E F E R S I K R A L I L T E S L A	280
rhesus US28.138	F D N I L O R Y Y D T - T N C D V E K I K H I M A M I S E A I V	268
rhesus US28.239	R D - I V I S D T S E D N K D C T Y L K O E H F I M V G V A L V	269
rhesus US28.342	I E N V A G O I Y H I O K D C W Y L Q L R H L C S L M T E T L V	273
rhesus US28.403	I D A L I S - I S H V I E P S A L H W A - - S I V V T C K S F T	281
rhesus US28.579	M Y S L V H - M Q - I P W E C S S E K I L R R S L I T E S I A	408
human US28.281	F C H C C L N P L L Y V E V G T K F R Q E L H C L L A E F R O R	312
rhesus US28.169	Y F R G I T A P I I Y V G I S G R R E E I Y S L F R R O Y N	300
rhesus US28.270	Y G R A I F N P F M Y M C V S T R L R O E I K C L F M R I P Y E	301
rhesus US28.374	F L R S V F N P Y I Y M I S Y K R R O Q V R S L L K R T Q Y D	305
rhesus US28.462	F V Y A G I S P L V Y F T C C P T V R R E L L M S L R P F T	292
rhesus US28.489	L S H C C I N P I I Y L L E G P R C R S E E C H L I R C C F T R	440
human US28.313	I F S R D V S W - - Y H S M S F S R R S S P S R R E T S S D T L	342
rhesus US28.301	D L D P D A N - - - - Q F M I E L T S Q G R S N R R A R O S	327
rhesus US28.322	T L D A E H A - - - - K I M V N L K N R N A N V P D P I C - -	325
rhesus US28.386	A L D T T Q L - - - - A E T M O L K A K G V P V S D P A - -	329
rhesus US28.403	I - - - - M I S S K I R G Y A P I K T O P L N I P D E P I	317
rhesus US28.541	I - C P H R S W S S I R A E T V S I S L S H S Q V S A S S E F D	471
human US28.343	S D E V C R V S Q I P	354
rhesus US28.328	E S N I V P I O P E E I C F W	339
rhesus US28.326	- - - P R E Y E S V L	333
rhesus US28.390	- - - P H O C E C E L	337
rhesus US28.418	D N K S P H L L N - E	327
rhesus US28.472	D N D V H D E L O F I	483

FIG.2 (Page 2 of 2)

human UL78	1	M S P S V E E T T S V T E S I M F A I V S F K H M G P F E G Y	31
rhesus UL78	1	- - - - -	0
human UL78	32	S M S A D R A A S D L L I G M F G S V S L V N E T E G C L	62
rhesus UL78	1	- M I T E R V L A G L L A G M T A A G S L V L L A V V - - M	28
human UL78	63	W V L R V T R P - - P V S V M I F T W N L V L S O F F S I L A	91
rhesus UL78	29	W L N M L D R A G M P M A V G H Y T G N L V L T Q V T G I F S	59
human UL78	92	T M L S K G I M L R G A L N L S L C R L V L F V D D V G L Y S	122
rhesus UL78	60	- M L A S K I V G M T S A A N M G F C G I V V F L E D T G L Y	89
human UL78	123	T A L F I E F L I L D R L S A I S Y G R D L W H H E - T R E N	152
rhesus UL78	90	V T S L L F M F M I L D R M A A F L N G R L F W R Q Q T I K Q	120
human UL78	153	A G V A L Y A V A F A W V L S I V A A V P T A A T G S L D Y R	183
rhesus UL78	121	N L S T S V Y I L F C W V L G M A A A V P S A A V A A P N S	151
human UL78	184	W L G C Q I P I Q Y A A V D L T I K M W F L L G A P M I A V L	214
rhesus UL78	152	R W E R C E I P V S Y A A I D M I V K L W F V L L A P V V L	182
human UL78	215	A N V V E L A Y S D F R D H V W S Y V G R V C T F Y V T C L M	245
rhesus UL78	183	M A V I I Q S S Y H E R E R I W Y Y A R R V F M F Y T A C F	213
human UL78	246	L F V P Y Y C F R V - - - - - L R G V - L Q P A S A A G T G	269
rhesus UL78	214	V M M V P Y Y F V R V M L S D F A L V D I K T K T A N S D G C	244
human UL78	270	F G I M D Y V E L A T R T L L T M R L G I L P I F L A F F S	300
rhesus UL78	245	D S T F L D Y L N M F T H V I Y S F K L V V E A F L L H C	275
human UL78	301	R E P T K D L D D S F D Y L V E R C Q Q S C H G H F V R R L V	331
rhesus UL78	276	S I N P M E T L E E C L E R A D A E R Q S H S E A S Q G E R R	306
human UL78	332	Q A L K R A M Y S V E L A V C Y F S T S V R D V A E A V K K S	362
rhesus UL78	307	L P I N T C C I K L I E L I K Q Y V S T L S K A T I D N S G E	337
human UL78	363	S S R C Y A D A T S A A V V T T T T S E K A T L V E H A E G	393
rhesus UL78	338	R A N L P E N A E D I G T T G S D Q L P T E V T V T P N S S A	368
human UL78	394	M A S E M C P G T T I D V S A E S S S V L C T D G E N T V A S	424
rhesus UL78	369	V F S T G G T V S P V	379
human UL78	425	D A T V T A L	431

FIG. 3

H UL33	1	M	-----	1
HUL33splice	1	M	-----	9
RhUL33	1	M	-----	1
RhUL33splice	1	M	-----	32
H UL33	2	PP	-----	1
HUL33splice	10	PP	-----	23
RhUL33	2	PP	-----	1
RhUL33splice	33	PP	-----	64
H UL33	2	TGPIFAIRTEAVLN	-----	33
HUL33splice	24	TGPIFAIRTEAVLN	-----	56
RhUL33	2	TGPIFAIRTEAVLN	-----	1
RhUL33splice	66	TGPIFAIRTEAVLN	-----	96
H UL33	34	QLLTNRVLGYSTPTIYMTNLYSTNFLTETVLP	-----	66
HUL33splice	56	QLLTNRVLGYSTPTIYMTNLYSTNFLTETVLP	-----	87
RhUL33	2	QLLTNRVLGYSTPTIYMTNLYSTNFLTETVLP	-----	16
RhUL33splice	97	QLLTNRVLGYSTPTIYMTNLYSTNFLTETVLP	-----	126
H UL33	66	EVLSNOWLLPAGVASCKFLSVIYVSSCTVGF	-----	97
HUL33splice	66	EVLSNOWLLPAGVASCKFLSVIYVSSCTVGF	-----	119
RhUL33	17	EVLSNOWLLPAGVASCKFLSVIYVSSCTVGF	-----	46
RhUL33splice	129	EVLSNOWLLPAGVASCKFLSVIYVSSCTVGF	-----	160
H UL33	66	ATVAALAAADRYRVLHKKRRAARCSWRSTYML	-----	129
HUL33splice	129	ATVAALAAADRYRVLHKKRRAARCSWRSTYML	-----	161
RhUL33	40	ATVAALAAADRYRVLHKKRRAARCSWRSTYML	-----	80
RhUL33splice	161	ATVAALAAADRYRVLHKKRRAARCSWRSTYML	-----	192
H UL33	100	ETWLAGGPFVPAAYVTTVMHHDANDTNSEN	-----	161
HUL33splice	162	ETWLAGGPFVPAAYVTTVMHHDANDTNSEN	-----	163
RhUL33	81	ETWLAGGPFVPAAYVTTVMHHDANDTNSEN	-----	110
RhUL33splice	193	ETWLAGGPFVPAAYVTTVMHHDANDTNSEN	-----	222
H UL33	162	GHATCVLYFVAEEVHTVLLSWKVLLEVMVWGAA	-----	193
HUL33splice	162	GHATCVLYFVAEEVHTVLLSWKVLLEVMVWGAA	-----	216
RhUL33	111	GHATCVLYFVAEEVHTVLLSWKVLLEVMVWGAA	-----	141
RhUL33splice	223	GHATCVLYFVAEEVHTVLLSWKVLLEVMVWGAA	-----	253
H UL33	194	PVIMMTWFYAFFYSTVORTSKKSRTLTFVS	-----	226
HUL33splice	216	PVIMMTWFYAFFYSTVORTSKKSRTLTFVS	-----	247
RhUL33	142	PVIMMTWFYAFFYSTVORTSKKSRTLTFVS	-----	172
RhUL33splice	264	PVIMMTWFYAFFYSTVORTSKKSRTLTFVS	-----	284
H UL33	226	MSLSEVALOTPYVSLMIFNSYATTAWPMQCE	-----	267
HUL33splice	244	MSLSEVALOTPYVSLMIFNSYATTAWPMQCE	-----	279
RhUL33	173	MSLSEVALOTPYVSLMIFNSYATTAWPMQCE	-----	204
RhUL33splice	286	MSLSEVALOTPYVSLMIFNSYATTAWPMQCE	-----	316
H UL33	266	HLTLRRITIGTLARVPHLHCLINPILYALLGH	-----	289
HUL33splice	280	HLTLRRITIGTLARVPHLHCLINPILYALLGH	-----	311
RhUL33	205	HLTLRRITIGTLARVPHLHCLINPILYALLGH	-----	236
RhUL33splice	317	HLTLRRITIGTLARVPHLHCLINPILYALLGH	-----	346
H UL33	290	DFLQRMHQCFRGQLLDRAFLRSDINORATAE	-----	321
HUL33splice	312	DFLQRMHQCFRGQLLDRAFLRSDINORATAE	-----	343
RhUL33	237	DFLQRMHQCFRGQLLDRAFLRSDINORATAE	-----	268
RhUL33splice	349	DFLQRMHQCFRGQLLDRAFLRSDINORATAE	-----	380
H UL33	322	TNLAAGNNSOSVATSLDTNENKQVNOFAKRSVS	-----	353
HUL33splice	344	TNLAAGNNSOSVATSLDTNENKQVNOFAKRSVS	-----	376
RhUL33	289	TNLAAGNNSOSVATSLDTNENKQVNOFAKRSVS	-----	327
RhUL33splice	361	TNLAAGNNSOSVATSLDTNENKQVNOFAKRSVS	-----	409
H UL33	364	FNFPSTGWKGGOKTASNDSTKIPHLRSOSH	-----	386
HUL33splice	376	FNFPSTGWKGGOKTASNDSTKIPHLRSOSH	-----	407
RhUL33	298	FNFPSTGWKGGOKTASNDSTKIPHLRSOSH	-----	324
RhUL33splice	410	FNFPSTGWKGGOKTASNDSTKIPHLRSOSH	-----	436
H UL33	388	NLSGV	-----	390
HUL33splice	408	NLSGV	-----	412
RhUL33	325	NLSGV	-----	329
RhUL33splice	437	NLSGV	-----	441

FIG. 4

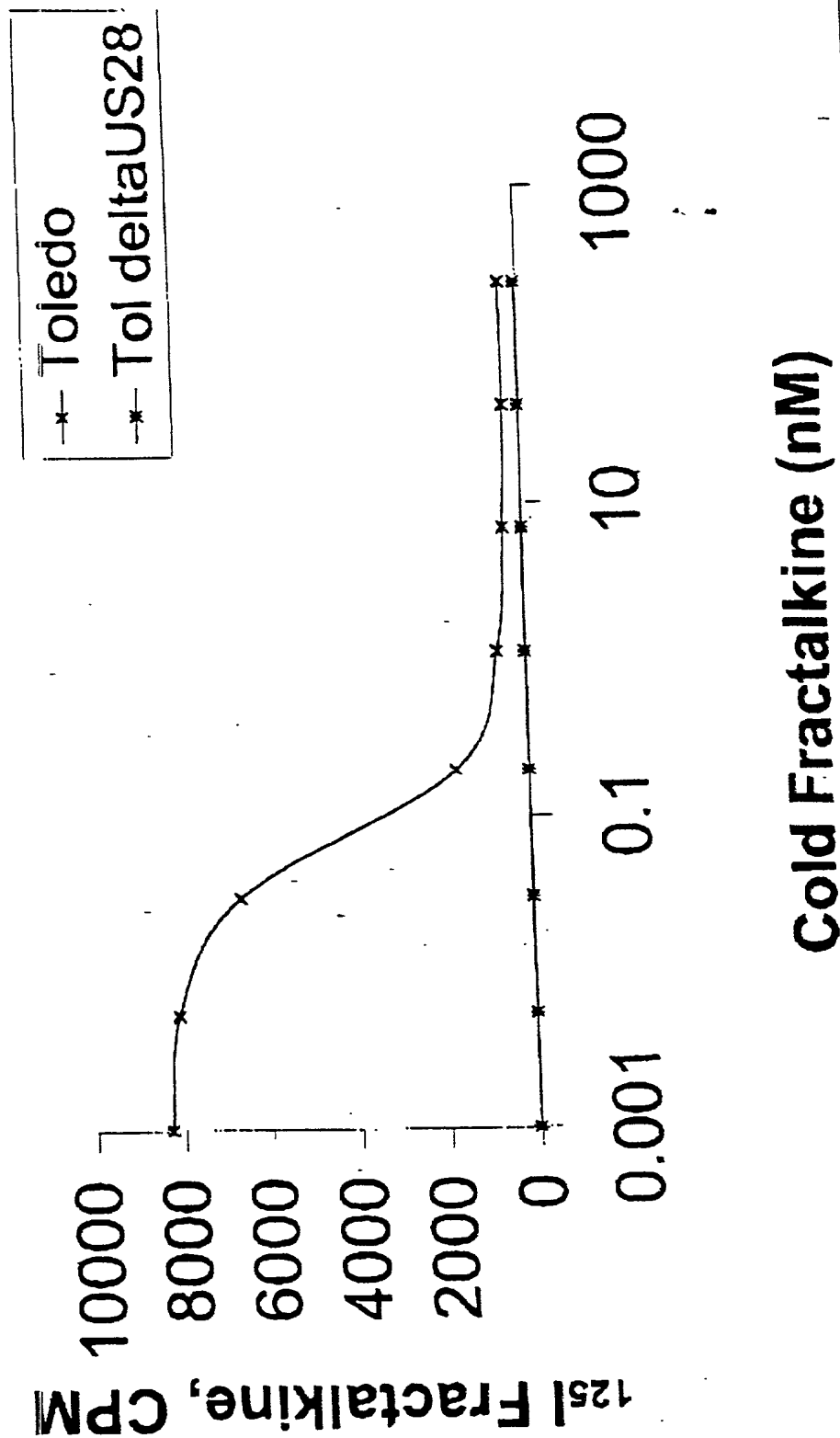


Fig. 5

Fractalkine Homologous Competition  
on Rh-CMV Infected Fibroblasts

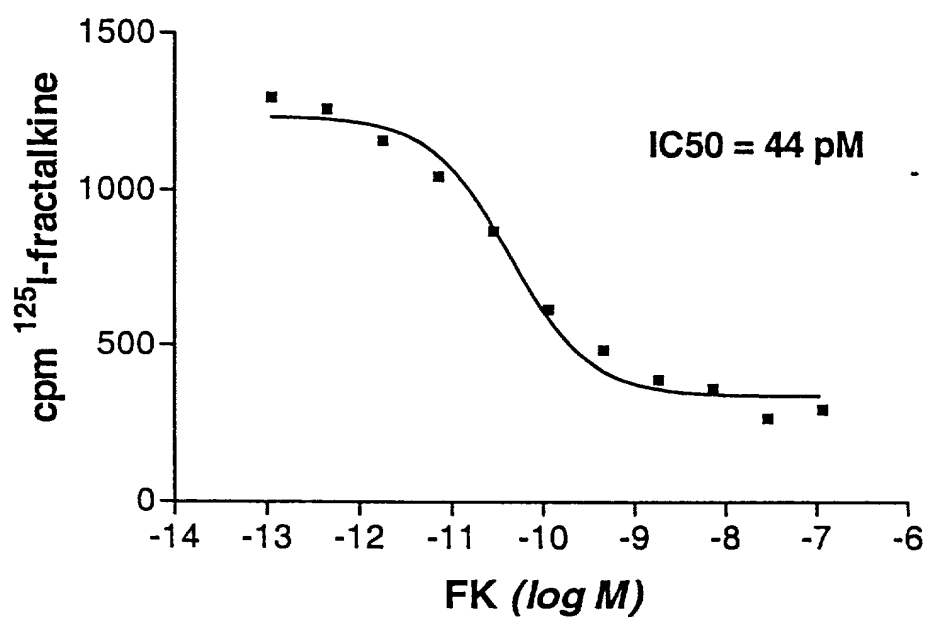


FIG. 6



# Sucrose Virions/CX3C binding

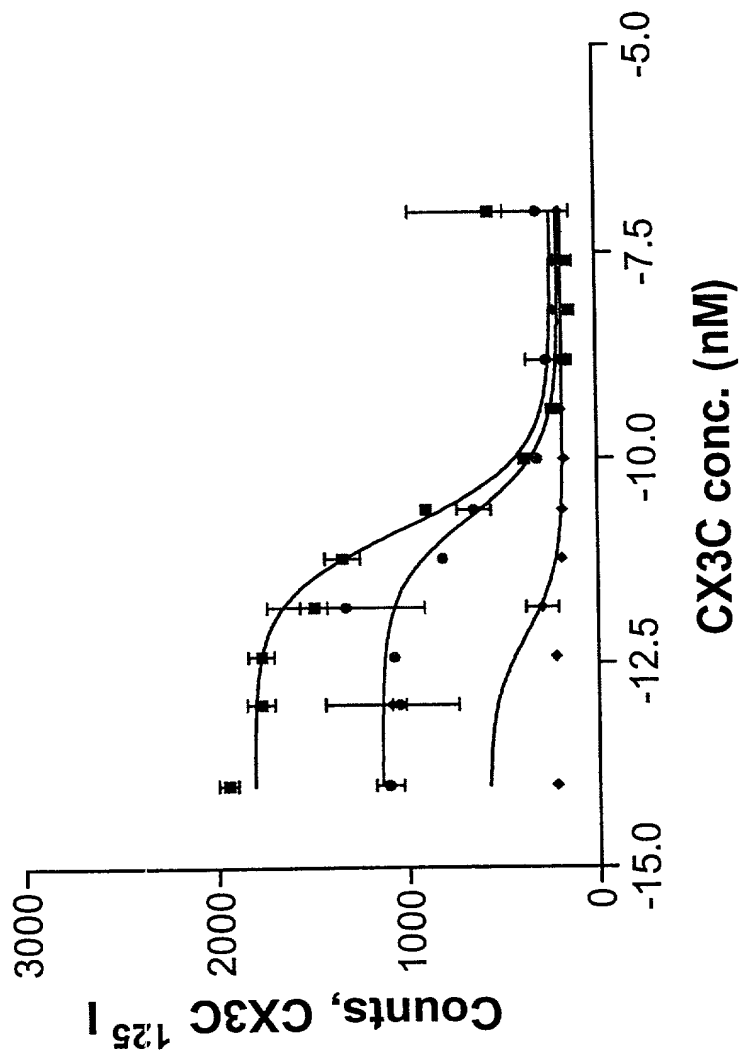


FIG. 7